

**Flood Control Project Maintenance  
Levee Inspections**

**Fall 2013 Levee Maintenance Deficiency Summary Report**

**Overall LMA & Unit Ratings, including USACE Erosion Survey**

**Sacramento River Basin**

<b>MA0003</b>	Overall LMA Rating	Total LMA Miles						
<b>Sutter Maintenance Yard Maintenance Area 0003</b>	<b>A</b>	<b>5.19</b>						
Rated Item	Maintenance Deficiency				Enforcement		Design & System Obsolescence	
	M Miles	U Miles	M + 4U Miles	Threshold %	M Miles	U Miles	M Miles	U Miles
<i>Earthen Levee</i>								
Vegetation	0.01		0.01	0.19%				
Encroachments					0.01			
<i>Interior Drainage &amp; Piping Systems</i>								
Sluice / Slide Gates	0.01		0.01	0.19%				
<i>Supplemental</i>								
DWR UCIP Field Study					0.02	0.08		
<i>LMA Totals:</i>	0.02	0.00	0.02	0.39%	0.03	0.08	0.00	0.00

**Flood Control Project Maintenance  
Levee Inspections  
LMA District Cover Sheet  
Fall 2013 Levee Inspection Results**

**Sutter Maintenance Yard Maintenance Area 0003**

	Spring (March - May)	Summer ** (June - August)	Fall (September - November)	Winter ** (December - February)
* Overall LMA Rating (Fall Only)			A	

\*\* Non-receipt of Summer or Winter Inspection Reports may effect overall annual rating.

\*  
SPRING INSPECTIONS: Overall maintenance ratings are not determined for the spring inspection results. Individual maintenance deficiencies are rated using the same criteria in the spring and in the fall.

FALL INSPECTIONS: The overall maintenance rating shown above is based on operation and maintenance deficiencies identified within the attached unit inspection reports. This rating is not intended to be an indication of risk.

Comments


**Flood Control Project Maintenance  
Levee Inspections**

**Unit Cover Sheet**

**Fall 2013 Levee Inspection Results**

**Sutter Maintenance Yard Maintenance Area 0003**

Waterway			Bank	Unit Miles
Unit No. 01 Feather River			Right	5.19
	Spring (March - May)	Summer (June - August)	(September - November) Fall	Winter (December - February)
Unit Maintenance Rating (Fall Only)			<b>A</b>	
Date of Inspection	04/22/2013 - 04/22/2013		10/22/2013 - 10/22/2013	
DWR Inspector	Rick Burnett		Matthew Hoffman	
Accompanied By				

**Summer & Winter Inspections**

The Local Maintaining Agency (LMA) is responsible for summer and winter inspections. The LMA is required to submit a report regarding summer and winter inspections to the California Department of Water Resources (DWR).

DWR must be informed on the:

- a) completion of the inspection
- b) any changes other than the results of normal maintenance
- c) corrections to deficiencies noted in this report

If additional items are noted, further documentation of those items must also be submitted.

The LMA should submit this information to DWR using the LMA web application tool available at:

<http://cdec.water.ca.gov/lma.html>

If the LMA is unable to submit information on this webpage, please contact DWR for assistance.

*The LMA should submit the information and any associated documentation by September 30 for summer inspections and March 31 for winter inspections.*

**Flood Control Project Maintenance  
Levee Inspections**

**Levee Inspection Report By Mile - Fall 2013**

**Sutter Maintenance Yard Maintenance Area 0003**

Waterway					Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Feather River					Right	5.19	10/22/2013 10/22/2013	Matthew Hoffman

  

LMR No.	Levee Mile		Category	Item	Location	Rating	Action/Comment	GPS Latitude/Longitude		Issue No. Photo
	Start	End						Start	End	
1			Earthen Levee	Operations & Maintenance Manuals	LS	A Ma		°	°	4
DWR ID: DWR_MA0003_01_s_2013_4										
2			Earthen Levee	Emergency Supplies & Equipment	LS	A Ma		°	°	6
DWR ID: DWR_MA0003_01_s_2013_6										
3			Earthen Levee	Flood Preparedness & Training	LS	A Ma		°	°	7
DWR ID: DWR_MA0003_01_s_2013_7										
4	0.80	0.80	Interior Drainage & Piping Systems	Sluice / Slide Gates	LS	M Ma	Inspector Comments: This pipe leaked during the high water event of 2010/2011.	38.903291 ° -121.605747 °	38.903291 ° -121.605747 °	5 Y
DWR ID: DWR_MA0003_01_s_2012_5										
5	0.80	0.80	Supplemental	DWR UCIP Field Study	LS	U En	Inspector Comments: FS_ID:6826 EP_NO: N/A Repair Type: Urgent Crossing Status: Found UCIP Comments: Flap gates not visible on waterward headwall and it appears as though they have been replaced by sandbags. Slide gates on LS appear to be closed yet water leaks excessively from the WS at the sadbagged headwall. FIELD_STRUCT_DESC: 2 of 2. 18-inch pipe through the levee, 32.0 feet below the crown. Flap gate on the waterward end. Slide gate on the landward end at concrete headwall. Concrete "U" headwall at the waterward toe. Originally included in O+M manual (1955). FS Date: 10/10/2012 9:23:00 AM	38.903264 ° 38.903264 °	-121.605698 ° -121.605698 °	1
DWR ID: DWR_MA0003_01_f_2013_1										
6	0.80	0.80	Supplemental	DWR UCIP Field Study	LS	U En	Inspector Comments: FS_ID:6824 EP_NO: N/A Repair Type: Urgent Crossing Status: Found UCIP Comments: Flap gates not visible on waterward headwall and it appears as though they have been replaced by sandbags. Slide gates on LS appear to be closed yet water leaks excessively from the WS at the sadbagged headwall. FIELD_STRUCT_DESC: 2 of 2. 18-inch pipe through the levee, 32.0 feet below the crown. Flap gate on the waterward end. Slide gate on the landward end at concrete headwall. Concrete "U" headwall at the waterward toe. Originally included in O+M manual (1955). FS Date: 10/10/2012 9:23:19 AM	38.903264 ° 38.903264 °	-121.605698 ° -121.605698 °	2
DWR ID: DWR_MA0003_01_f_2013_2										

**\* Location**

LS : Land Side  
WS : Water Side  
CR : Crown

**\*\* Rating**

A : Acceptable  
M : Minimally Acceptable  
U : Unacceptable  
N : Not Inspected/Rated  
C : Corrected  
A/W : Acceptable but Monitor & Maintain

**+ Issue Type**

Ma : Maintenance Deficiency  
Ob : Design & System Obsolescence  
En : Enforcement

**Flood Control Project Maintenance  
Levee Inspections**

**Levee Inspection Report By Mile - Fall 2013**

**Sutter Maintenance Yard Maintenance Area 0003**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Feather River	Right	5.19	10/22/2013 10/22/2013	Matthew Hoffman

LMR No.	Levee Mile		Category	Item	Location	Rating	Action/Comment	GPS Latitude/Longitude		Issue No. Photo
	Start	End						Start	End	

7	0.80	0.80	Supplemental	DWR UCIP Field Study	LS	U En	Inspector Comments: FS_ID:6823 EP_NO: N/A Repair Type: Urgent Crossing Status: Found UCIP Comments: Flap gates not visible on waterward headwall and it appears as though they have been replaced by sandbags. Slide gates on LS appear to be closed yet water leaks excessively from the WS at the sandbagged headwall. FIELD_STRUCT_DESC: 1 of 2. 18-inch pipe through the levee, 32.0 feet below the crown. Flap gate on the waterward end. Slide gate on the landward end at concrete headwall. Concrete "U" shaped headwall at the waterward toe. Originally included in O+M manual (1955). FS Date: 10/10/2012 8:58:28 AM	38.903264 ° -121.605698 ° 38.903264 ° -121.605698 °	8
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DWR ID: DWR\_MA0003\_01\_f\_2013\_8

8	0.80	0.80	Supplemental	DWR UCIP Field Study	LS	U En	Inspector Comments: FS_ID:13563 EP_NO: N/A Repair Type: Urgent Crossing Status: Found UCIP Comments: Flap gates not visible on waterward headwall and it appears as though they have been replaced by sandbags. Slide gates on LS appear to be closed yet water leaks excessively from the WS at the sandbagged headwall.5/21/2013 SBFCA project recommends replacing in accordance with title 23.5/21/2013 High water levels in WS ditch have pipe ends underwater but repairs have not yet been completed but are planned for when water levels drop. FIELD_STRUCT_DESC: 2 of 2. 18-inch pipe through the levee, 32.0 feet below the crown. Flap gate on the waterward end. Slide gate on the landward end at concrete headwall. Concrete "U" headwall at the waterward toe. Originally included in O+M manual (1955). FS Date: 5/21/2013 2:11:30 PM	38.903264 ° -121.605698 ° 38.903264 ° -121.605698 °	9
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DWR ID: DWR\_MA0003\_01\_f\_2013\_9

9	0.80	0.80	Supplemental	DWR UCIP Field Study	LS	U En	Inspector Comments: FS_ID:13567 EP_NO: 13624 Repair Type: Urgent Crossing Status: Found UCIP Comments: 5/21/2013 SBFCA project recommends replacing in accordance with title 23.5/21/2013 Hole in slope along outside of standpipe thats about 1 foot deep with moisture in the bottom. Dirt inside standpipe around siphon breaker also wet indicating there may be a leak. Need to investigate source or moisture. FIELD_STRUCT_DESC: 20-inch pipe through the levee 3 feet below the crown. Siphon breaker on the waterward shoulder. Open on waterward end. Pump in ditch on landward side. (Permit No. 13624-D & D, Inc.) FS Date: 5/21/2013 2:25:11 PM	38.903264 ° -121.605698 ° 38.903264 ° -121.605698 °	10
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DWR ID: DWR\_MA0003\_01\_f\_2013\_10

<b>* Location</b> LS : Land Side WS : Water Side CR : Crown	<b>** Rating</b> A : Acceptable M : Minimally Acceptable U : Unacceptable N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	<b>+ Issue Type</b> Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
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## Sutter Maintenance Yard Maintenance Area 0003

DWR ID: DWR\_MA0003\_01\_f\_2013\_13

**Flood Control Project Maintenance  
Levee Inspections**

**Levee Inspection Report By Mile - Fall 2013**

**Sutter Maintenance Yard Maintenance Area 0003**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Feather River	Right	5.19	10/22/2013 10/22/2013	Matthew Hoffman

LMR No.	Levee Mile		Category	Item	Location	Rating	Action/Comment	GPS Latitude/Longitude		Issue No.
	Start	End						Start	End	
13	1.82	1.82	Earthen Levee	Encroachments	WS	M En	TR : Tree or limb	38.907469 ° -121.589717 °	38.907469 ° -121.589717 °	20
								DWR ID: DWR_MA0003_01_f_2013_20		
14	2.15	2.15	Earthen Levee	Slope Stability	WS	C Ma	S3 : Repair the levee slope damaged by vehicle traffic and prevent access where possible.	38.911220 ° -121.586530 °	38.911220 ° -121.586530 °	3
								DWR ID: DWR_MA0003_01_s_2013_3		
15	2.19	2.19	Supplemental	DWR UCIP Field Study	WS	M En	Inspector Comments: FS_ID:6829 EP_NO: 3284 Repair Type: Non-Urgent Crossing Status: Found UCIP Comments: Pumping plant has been disconnected from levee. Need to determine if abandonment is appropriate or if this is now a gravity drain with flap gate. FIELD_STRUCT_DESC: 32-inch by 32-inch concrete box culvert through the levee approximately 28 feet below the crown. Transition between vault on RS and box culvert within levee section is made with a 41-inch CMP. Slide gate on LS at concrete headwall. Flap Gate in concrete vault on RS at terminal of pipes from pump structure in floodway. Pipes from pump station in creek be no longer connected. (Permit No. 3284) FS Date: 10/10/2012 12:37:13 PM	38.911734 ° 38.911734 °	-121.586106 ° -121.586106 °	14 Y
								DWR ID: DWR_MA0003_01_f_2013_14		
16	2.19	2.19	Supplemental	DWR UCIP Field Study	WS	M En	Inspector Comments: FS_ID:13570 EP_NO: 3284 Repair Type: Non-Urgent Crossing Status: Found UCIP Comments: Pumping plant has been disconnected from levee. Need to determine if abandonment is appropriate or if this is now a gravity drain with flap gate. 5/21/2013 Pumping plant was running and filling concrete vault on WS toe through the left flap gate and then flowing through levee pipe and filling irrigation ditch on LS. Left and middle flap gates appear to be connected to pumps and right gate appears abandoned. Recommend contacting owner to get more details. FIELD_STRUCT_DESC: 32-inch by 32-inch concrete box culvert through the levee approximately 28 feet below the crown. Transition between vault on RS and box culvert within levee section is made with a 41-inch CMP. Slide gate on LS at concrete headwall. Flap Gate in concrete vault on RS at terminal of pipes from pump structure in floodway. Pipes from pump station in creek be no longer connected. (Permit No. 3284) FS Date: 5/21/2013 2:33:53 PM	38.911734 ° 38.911734 °	-121.586106 ° -121.586106 °	15
								DWR ID: DWR_MA0003_01_f_2013_15		
17	2.29	2.42	Earthen Levee	Slope Stability	WS	C Ob	S1 : Repair slope instability. Inspector Comments: Material movement on the waterside slope. The LMA should investigate the matter further.	38.912960 ° -121.585220 °	38.914582 ° -121.584106 °	119
								DWR ID: DWR_MA0003_01_s_2012_119		

* Location	** Rating	+ Issue Type
LS : Land Side	A : Acceptable	Ma : Maintenance Deficiency
WS : Water Side	M : Minimally Acceptable	Ob : Design & System Obsolescence
CR : Crown	U : Unacceptable	En : Enforcement
	N : Not Inspected/Rated	
	C : Corrected	
	A/W : Acceptable but Monitor & Maintain	

**Flood Control Project Maintenance  
Levee Inspections**

**Levee Inspection Report By Mile - Fall 2013**

**Sutter Maintenance Yard Maintenance Area 0003**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Feather River	Right	5.19	10/22/2013 10/22/2013	Matthew Hoffman

LMR No.	Levee Mile		Category	Item	Location *	Rating ** +	Action/Comment	GPS Latitude/Longitude		Issue No. Photo
	Start	End						Start	End	
18	3.64	3.64	Earthen Levee	Vegetation	LS	M Ma	V4 : Elderberries are blocking visibility and flood fight capability. Inspector Comments: Elderberries on the landward levee toe.	38.930063 ° -121.590211 °	38.930063 ° -121.590211 °	19 Y
DWR ID: DWR_MA0003_01_f_2013_19										
19	5.18	5.18	Earthen Levee	Vegetation	WS	A Ma	V1 : Control annual grass and weeds on the levee slopes and easements.	38.950930 ° -121.585773 °	38.950930 ° -121.585773 °	18
DWR ID: DWR_MA0003_01_f_2013_18										

**\* Location**

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WS : Water Side  
CR : Crown

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A/W : Acceptable but Monitor & Maintain

**+ Issue Type**

Ma : Maintenance Deficiency  
Ob : Design & System Obsolescence  
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**Flood Control Project Maintenance  
Levee Inspections**

**Levee Inspection Report By Mile - Fall 2013**

**Sutter Maintenance Yard Maintenance Area 0003**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Feather River	Right	5.19	10/22/2013 10/22/2013	Matthew Hoffman

Levee Mile Report Line	4
Start Levee Mile	0.80
End Levee Mile	0.80
Location	Land Side
Category	Interior Drainage & Piping Systems
Item	Sluice / Slide Gates

Levee mile 0.80, this photo is looking at the landside toe, one of these pipes leaked during the high water event of 2010/2011. A flap gate prevents flow from the waterward side to the landward side of the levee.

mhoffman\_f\_20130917\_007.jpg



Levee Mile Report Line	12
Start Levee Mile	0.80
End Levee Mile	0.80
Location	Land Side
Category	Supplemental
Item	DWR UCIP Field Study

Concrete headwall with walkway and slide gates at LS toe.

UCIP\_7361.jpg



Levee Mile Report Line	15
Start Levee Mile	2.19
End Levee Mile	2.19
Location	Land Side
Category	Supplemental
Item	DWR UCIP Field Study

Pumping plant on WS toe at small slough. Pipes no longer connected to concrete box on WS toe.

UCIP\_2960.jpg



<b>* Location</b> LS : Land Side WS : Water Side CR : Crown	<b>** Rating</b> A : Acceptable M : Minimally Acceptable U : Unacceptable N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	<b>+ Issue Type</b> Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
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**Flood Control Project Maintenance  
Levee Inspections**

**Levee Inspection Report By Mile - Fall 2013**

**Sutter Maintenance Yard Maintenance Area 0003**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Feather River	Right	5.19	10/22/2013 10/22/2013	Matthew Hoffman

Levee Mile Report Line	18
Start Levee Mile	3.64
End Levee Mile	3.64
Location	Land Side
Category	Earthen Levee
Item	Vegetation

This photo was taken from the levee crown facing south looking down the landward levee slope at a group of Elderberries. Fall 2013.

mhoffman\_f\_20131028\_682.JPG

**\* Location**

LS : Land Side  
WS : Water Side  
CR : Crown

**\*\* Rating**

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M : Minimally Acceptable      C : Corrected  
U : Unacceptable      A/W : Acceptable but Monitor & Maintain

**+ Issue Type**

Ma : Maintenance Deficiency  
Ob : Design & System Obsolescence  
En : Enforcement